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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,220	09/08/2003	Yoichiro Yamanaka	03547C/HG	2701

1933 7590 05/18/2006

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EXAMINER

RICKMAN, HOLLY C

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/658,220

Applicant(s)

YAMANAKA ET AL.

Examiner

Holly Rickman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-27 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 8-13, 15-17, 19, 22-27 and 30 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 7, 18, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/23/06.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The rejection of claims 1-7 and 15-25 under 35 U.S.C. 103(a) as being unpatentable over Kuze et al. (JP07109363) in view of Markfort et al. (US5451304) is withdrawn in view of Applicant's arguments.
3. Claims 1-3, 5, 15-17, 19, 22-25, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuze et al. (JP 07-109363).

Kuze teaches a metal sheet that is laminated on both sides with a polyester film (section 9). The coated metal sheet is intended to be used as a container (see abstract). The polyester film contains at least 70% by weight polyethylene terephthalate or ethylene terephthalate units and at 0.3-10% by weight of an immiscible thermoplastic (section 8). Suitable materials for use as the immiscible thermoplastic include polyolefin resins (section 15). These resin layers can be laminated to the metal sheet through an adhesive resin layer (section 24)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize 10% by weight of an immiscible polyolefin in the polyester film taught by Kuze, as Kuze specifically teaches that this amount and type of additive material is suitable.

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The examiner takes the position that the use of 10 % by weight of polyolefin in the polyester film would necessarily result in a film having the claimed polarity force component. The specification provides support for this position because it disclosed that 5-20% of an olefin component prevents the polarity force component from decreasing below the claimed value. Thus, in the absence of a showing to the contrary, one of ordinary skill in the art would expect that the composition taught by Kuze teaching the claimed amount of olefin component would necessarily meet the claimed polarity force component limitation.

Kuze also teaches that other additives can be included in the polyester films, including lubricants, antioxidants, nucleating agents etc. (section 19).

It has been held that where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the burden of proof is shifted to applicant to show that prior art products do not necessarily or inherently possess characteristics of claimed products where the rejection is based on inherency under 35 USC §102 or on prima facie obviousness under 35 USC §103, jointly or alternatively. *In re Best, Bolton, and Shaw*, 195 USPQ 430. (CCPA 1977).

4. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuze as modified by Markfort as set forth above for claim 1 , and further in view of Iwasa et al. (JP200158585).

Kuze does not teach the limitations of claim 8, which requires the polyester resin film of claim 1 to have a specific benzene carbon relaxation time. However, Iwasa '585 teaches a polyester resin coated metal sheet for a container. Further, Iwasa 1585 teaches that by utilizing a

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polyester having a benzene carbon relaxation time of 150msec or more to form the polyester coating on the metal sheet, the shock resistance of the coating is improved (section 34).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the polyester having a benzene carbon relaxation time of 150msec taught by Iwasa '585 as the polyester in Kuze.

One would have been motivated to make this modification in view of the teaching in Iwasa that by utilizing a polyester having a benzene carbon relaxation time of 150msec or more, the shock resistance of the film is improved.

Further, Kuze does not teach the limitations of claim 11, which require the resin film of claim 1 to comprise greater than or equal to 95 mol % ethylene terephthalate units. However, Iwasa '585 teaches a polyester resin coated metal sheet for a container. Further, Iwasa '585 teaches that by utilizing a polyester having containing >95 mol% ethylene terephthalate units, the shock resistance of the film is improved (section 23).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a polyester film containing 95 mol % or greater of ethylene terephthalate units as taught by Iwasa '585 as the polyester of Kuze.

One would have been motivated to make this modification in view of the teaching in Iwasa that by utilizing a polyester having 95 mol % ethylene terephthalate units improves the taste properties and shock resistance of the film. One would have been further motivated in view of the fact that Kuze expressly teaches that the film should contain > 70 mol % ethylene terephthalate units.

Kuze does not teach the limitations of claim 9, which requires that the polyester resin film contain as a main component a biaxially oriented polyester having a specified melting point range wherein the content of a terminal carboxyl group is in the range of 10-50 equivalent/ton, and an isophthalic acid component is not substantially contained as an acid component.

It is noted that Kuze does teach the polyester film may be biaxially oriented (section 23).

Iwasa '586 teaches a polyester resin coated metal sheet for a container. By utilizing a polyester film having identical properties to those claimed by claim 9,

Iwasa '586 teaches that a resin coated metal plate having excellent moldability, impact resistance, taste characteristics, and whitening resistance is achieved (see abstract).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the polyester of Iwasa 1586 as the polyester in Kuze.

One would have been motivated to make this modification in view of the teaching in Iwasa '586 that by doing so a resin film coated metal sheet for a container having excellent moldability, impact resistance, taste characteristics, and whitening resistance can be achieved.

Kuze does not teach the limitations of claim 10, which requires that the polyester resin film be a biaxially oriented film having a Young's modulus of 120-220 kg/mm².

Iwassa '583 teach a polyester film having identical properties to those claimed by claim 10, and teach that this polyester film coated on a metal plate has excellent shock resistance (section 15).

One would have been motivated to make this modification in view of the teaching in Iwasa '583 that by using a polyester having a young's modulus between 120-220kg/mm² in coated metal sheet for a container having excellent shock resistance.

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Kuze does not teach the limitations of claim 12, which requires that the polyester resin film be a biaxially oriented film having greater than or equal to 93 mol % of ethylene terephthalate units and a crystal size χ in a (100) plane obtained through x-ray diffraction measurement is 6.0nm or smaller.

By utilizing a polyester film having identical properties to those claimed by claim 12, Iwasa '588 teaches that a resin coated metal plate having good moldability, taste properties, and shock resistance is attained (section 13). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the polyester resin of Iwasa '588 as the polyester of Kuze.

Kuze does not teach the limitations of claim 13, which requires that the polyester resin film be a biaxially oriented film having greater than or equal to 93 mol % of ethylene terephthalate units and a crystal orientation parameter R obtained through x-ray diffraction measurement is 20×10^{-2} or more.

By utilizing a polyester film having identical properties to those claimed by claim 13, Iwasa teaches that a resin coated metal plate having good moldability, taste properties, and shock resistance is attained (section 13). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the polyester resin of Iwasa as the polyester of Kuze.

5. Claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuze as applied above, and further in view of Tanaka (U56217994)

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Kuze does not teach the limitations of claims 26-27, which require that the resin film on the inner surface side of the container contain a aromatic diamine base organic pigment (claim 26) or a benzimidazolone pigment (claim 27).

As noted above, Kuze teaches that the polyester films can contain a pigment.

Bearing this in mind, Tanaka teaches polyester based paint compositions for coating metal sheets (column 1, lines 4-10). The paint suitably contains one or more coloring pigments (column 5, lines 25-33). Suitable pigments include organic yellow pigments such as benzimidazolone and isoindolinone (column 6, lines 1-8).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize benzimidazolone or isoindolinone as taught by Tanaka as the pigment in the polyester resin taught by Kuze.

One would have been motivated to make this modification in view of the teaching in Kuze that pigments can be added to the polyester films, the teaching in Tanaka that benzimidazolone and isoindolinone are suitable pigments for polyester compositions utilized to coat metal sheets, and in view of the aesthetic benefits one would expect to gain as a result.

Allowable Subject Matter

6. Claims 4, 6-7, 18, and 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments filed 2/23/06 have been fully considered but they are not persuasive with respect to the rejections of the claims under 35 USC 103 in view of Kuze et al. as set forth above.

Applicant points out that the prior art combination of Kuze in view of Markfort fails to teach or suggest the claimed polarity force component and does not disclose the claimed amount of wax component and olefin resin which provide the claimed polarity force component.

The examiner notes that a new grounds of rejection under 35 USC 103 in view of Kuze alone has been set forth in response to these arguments. It appear that Kuze et al. inherently satisfies the claimed polarity force component by virtue of the fact that it teaches the claimed amount of olefin resin.

The rejections of the claims directed to the presence of a specific amount and/or type of wax component have been withdrawn in view of Applicant's arguments

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Rickman whose telephone number is (571) 272-1514. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Holly Rickman", with a stylized flourish at the end.

Holly Rickman
Primary Examiner
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